



State of Alaska
 Department of Natural Resources
 Division of Geological & Geophysical Surveys

Progress Report: Systematic Approach to Assessing the Vulnerability of Alaska's Coastal Infrastructure to Erosion

Date: October 30, 2020

Period of Reporting: July 1-September 30, 2020

Submitted to: Denali Commission

Objectives and Milestones

Objectives	Year 1			
	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec
Project kickoff, account setup at State of Alaska, and staff hiring		X		
Establish data agreements for infrastructure file datasets			X	X
Provide initial assessment at pilot sites (Locations: Alakanuk and Kipnuk)				X
	Year 2			
	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec
Publish initial shoreline change assessment as DGGS report of investigations	X	X	X	X
Provide draft final product to Denali Commission and designated stakeholders for feedback (Locations: Nunam Iqua and Kotlik)	X			
Project shorelines and build infrastructure projection geodatabases and map products	X	X	X	X
Create public-facing data catalog (online map) to track data and reporting gaps on flood, erosion, and permafrost hazards for environmentally threatened communities.		X	X	X
	Year 3			
	Jan-Mar	Apr-Jun		
Publish shoreline projection geodatabases and map products	X	X		
Final report to Denali Commission		X		

(2000) character limit

DGGS is continuing to move forward with developing Infrastructure Management Planning Assistance for Coastal Towns (IMPACT) model results for 45 communities. Initial results have been completed for

12 communities (previously reported 4) including Nunam Iqua, Kotlik, Kaktovik, Newtok, Alakanuk, Quinhagak, Egegik, Kipnuk, Kwigillingok, Point Hope, Shishmaref, and Emmonak. Moving forward DGGS will complete these analyses for the remaining communities. To meet the project timeline, DGGS successfully hired a new Geologist I to assist the existing DGGS staff.

The shoreline change report advanced again in the DGGS review process, however, still not as quickly as anticipated. The report is not yet published, but section chief reviews were completed and sent back to the authors (all internal to DGGS). The timeline has been delayed to an expected publication date in the next quarter. The maps within the report are being provided in draft form upon request for extenuating circumstances, including grant proposals and community decision making meetings.

During this project period, DGGS has made progress to develop a data catalog that would assist in tracking data and projects associated with flood, erosion, and permafrost hazards for environmentally threatened communities. DGGS has finalized formatting with ANTHC CETC grants program to determine what fields (types of reports/projects) should be tracked and has given ANTHC CETC editing abilities and one-page how-to's. ANTHC CETC and DGGS are actively updating the data catalog. Communications with DCRA have also begun to ensure awareness and limit duplication of these online mapping systems. The ArcGIS story map that will be the host for providing these data to the public is still under review.

Budget Summary

On track.

Expenditures:

Total this quarter \$26,425.82

Den. Com. \$17,329.70

Match \$9,096.12